Amendments to the Specification:

Please amend the paragraph starting on line 33 of page 1 of the specification, paragraph [0006] of the patent application publication, as follows:

Accordingly, preferably simulation of wireless communication systems and components includes simulation of non-linear blocks or elements. However, simulation of non-linear elements may be difficult. Simulation of non-linearities may be extremely expensive from a computational perspective, with for example extraneous signal components spread about the ~~continous~~ continuous spectrum. This computational expense is further increased if the non-linear blocks include memory.

Please amend the paragraph starting on line 12 of page 2 of the specification, paragraph [0010] of the patent application publication, as follows:

Another aspect of the invention provides a method of ~~modelling~~ modeling circuitry, comprising converting first signals to compressed equivalent signals; processing the compressed equivalent signals to form further compressed equivalent signals; and converting the further compressed equivalent signals to second signals.

Please amend the paragraph starting on line 16 of page 2 of the specification, paragraph [0011] of the patent application publication, as follows:

Another aspect of the invention provides a system for performing RF signal processing ~~modelling~~ modeling, the system comprising signal generator blocks forming compressed vector based equivalent signal representations; RF signal processing blocks processing compressed vector based equivalent signal representations; and conversion blocks converting compressed vector based equivalent signals to RF signal representations.

Please amend the paragraph starting on line 28 of page 3 of the specification, paragraph [0029] of the patent application publication, as follows:

As an example, consider a 900 GSM 900 MHz application. The application has a carrier frequency of 900 MHz. In the example, the application has a third order non-linearity, so that three harmonics are of interest. The total signal bandwidth is therefore 2.7 GHz. If a sampling frequency is 1 KHz, a vector of length ~~2,7000,000~~ 2,700,000 defines the sampled signal. If, however, the channel bandwidth is 6 MHz a significant portion of the vector contains information not of particular importance.

Please add a paragraph immiediately prior to the paragraph starting on line 4 of page 8 of the specification, paragraph [0058] of the patent application, as follows:

In some embodiments a Compressed Vector-Based Spectral Analysis method is performed using software modules executing on computer systems. Examples of such computer systems include SPARCS, Personal Computers (PC), and networked computer systems. The software modules are sometimes stored on optical or magnetic media.

Please amend the paragraph starting on line 4 of page 8 of the specification, paragraph [0058] of the patent application publication, as follows:

FIG. 4 is a flow diagram of a process of simulating a component or system using frequency bands of interest. In Block 401 an input signal (or signals) is converted to a CVB format. In block 403 the system is simulated using CVB operations, for example as described above, and CVB format results are produced. In block [[405]] 404 the CVB format results are reconverted to the form of the input signal and provided as an output.